PB87-112017

# Pesticide Fact Sheet Number 33: Dantochlor

(U.S.) Environmental Protection Agency
Washington, DC

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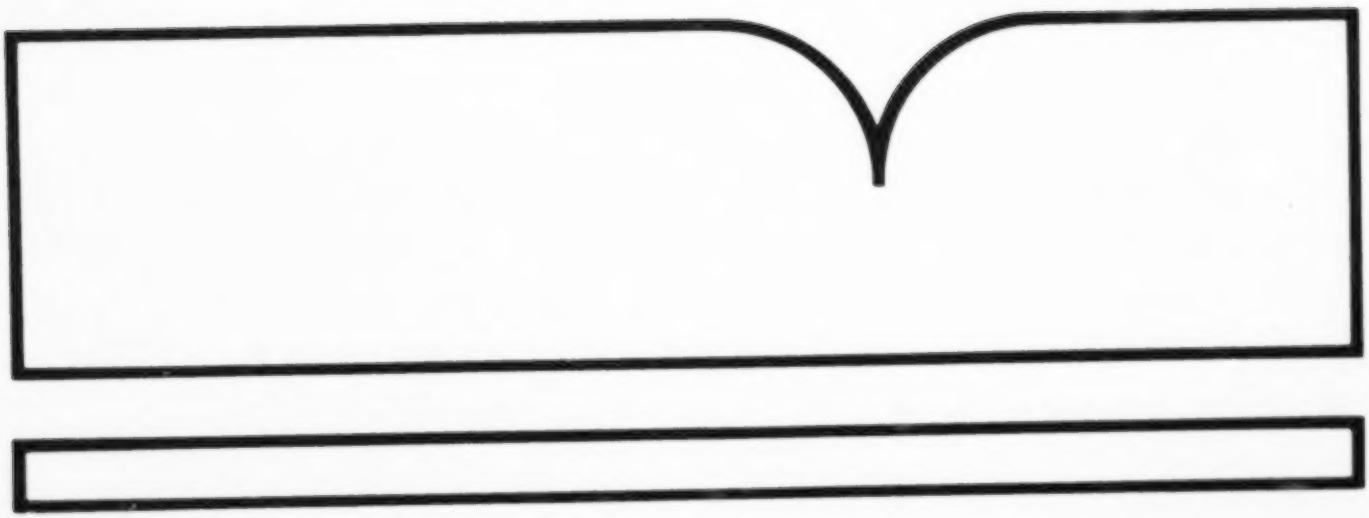

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15. Supplementary Notes

16. Abstract (Limit: 200 words)

This document contains up-to-date chemical information, including a summary of the Agency's regulatory position and rationale, on a specific pesticide or group of pesticides. A Fact Sheet is issued after one of the following actions has occurred.

1. Issuance or reissuance of a registration standard,
2. Issuance of each special review document,
3. Registration of a significantly changed use pattern,
4. Registration of a new chemical, or
5. An immediate need for information to resolve controversial issues relating to a specific chemical or use pattern.

17. Document Analysis a. Descriptors

Pesticides, regulations, Chemical Information Fact Sheet, Use Patterns, Science Findings

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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United States
Environmental Protection
Agency

Office of Pesticides and Toxic Substances
Office of Pesticide Programs (TS-766C)
Washington, DC 20460

EPA

# Pesticide Fact Sheet

Name of Chemical: DANTOCHLOR
Reason for Issuance:
Date Issued: Sept. 12, 1984
Fact Sheet Number: Sept.12, 1984

## 1. Description of chemical

Generic Name: Chlorinated Hydantoin Derivative
Common name: 1,3-dichloro-5-ethyl-5-methylhydantoin
Trade name: Dantochlor
EPA Shaughnessy code: #128826
Chemical Abstracts Service (CAS) number:
Year of initial registration: 1984
Pesticide type: Disinfectant (Slimicide, Algaecide, and Bactericide)
Chemical family: Hydantoins
U. S. and foreign producers: Glyco Inc.

## 2. Use patterns and formulations

Application sites: recirculating cooling water (Cooling Towers and air washers)
Types of formulations: Tablets (Briquettes)
Types and Methods of application: Manual
Application rates: 0.1 to 0.125 lb. per 1000 gal per day=12.90 ppm
Usual carriers: usually marketed in concentrated form with other related chlorinated and brominated hydantoins

## 3. Science Findings

Chemical Characteristics: solid, white powder, granules or briquettes, slight chlorine odor, melting point 106-130°c, Strong oxidizing agent, corrosive to tissues, and metals, capable of spontaneous reaction with water, organic contaminants.

Toxicology characteristics: Major routes of exposure in order of toxicological significance.

Toxicity Category and values for each acute hazard: acute Oral-Category 3, Eye Irritation Category 1, Acute Dermal-Category 3, Skin Irritation-Category 1.

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Chronic toxicology results·

| | |
|---|---|
| Mutagenicity | no adverse efect was |
| Cytogenicity | shown in these studies |
| Skin Absorption Study | for the proposed uses |
| Exposure Assesment to address risk | |

Physiological and Biochemical Behavioral Characteristics:

Foliar absorption: N/A
Transolocation: N/A
Mechanism of pesticidal action: Hydrolyses in water to yield hypochlorous acid, (which is the disinfecting agent) and hydantoin.

Metabolism and persistence in plants and animals. N/A

Environmental Characteristics:

Absorption and leaching in basic soil types: N/A
Microbial breakdown. N/A
Loss from photodecomposition and/or volatization: neglible
Bioaccumulation: N/A
Resultant average persistance: N/A

Ecological Characteristics:

Hazards to fish and wildlife (avian oral and dietary $LD_{50}$, fish $LC_{50}$ and aquatic invertebrate $LC_{50}$).
Potential problems related to endangered species: There are potential risks associated with the use of this product to aquatic organisms. NPDES permits are required and may mitigate hazards.

Tolerance assessments: No crop applications

Problems which are known to have occurred with use of the chemical (e.g., P.I.M.S. data). None

Summary of Regulatory Position and Rationale:

Use Classification: General Use
formulation or geographical restrictions: not to be registered for use in Spas, Hot Tubs, and swimming pools until additional chronic studies are submitted and accepted.
Unique warning statements required on labels: None

Regulatory decisions in cases where risk assessments were conducted, including consideration of benefits:

Benefits exceeds risks for the use of the product in air recirculation water washers and cooling towers.

Summary of major data gaps and dates when these major data gaps are due to be filled: There are no data gaps for the approved uses.

Contact person at EPA (A. E. Castillo, 401 M St., SW; Washington, DC. 20460 TS-767C, 703-557-3964.

DISCLAIMER: The information presented in this Chemical Information Fact Sheet is for informational purposes only and may not be used to fulfill data requirements for pesticide registration and re-registration.